

Amendments to the Claims

This listing of claims will replace the originally filed claims in the application.

Listing of Claims:

Claims 1 – 14 (cancelled)

Claim 15 (new): A device for transferring water and heat between a first and a second air flow, comprising a stack of at least two transfer subassemblies having a lamellar configuration, each comprising a transfer structure with hydrophilic porous materials arranged between a first structure for distributing the first air flow and a second structure for distributing the second air flow.

Claim 16 (new): The device of claim 15, characterized in that the transfer structure comprises at least one microporous layer and one macroporous layer.

Claim 17 (new): The device of claim 16, characterized in that the macroporous layer is a support layer made from a material with long fibers.

Claim 18 (new): The device of claim 17, characterized in that the macroporous layer is made from a material formed of cellulose or glass fibers.

Claim 19 (new): The device of claim 17, characterized in that the macroporous layer consists of woven fibers.

Claim 20 (new): The device of claim 17, characterized in that the macroporous layer has a pore size of between 50 and 250 µm.

Claim 21 (new): The device of claim 16, characterized in that the microporous layer has a pore size not exceeding 5 microns.

Claim 22 (new): The device of claim 21, characterized in that the microporous layer is made from polyethersulfone (PES).

Claim 23 (new): The device of claim 16, characterized in that each of the porous layers is not more than 5 mm thick.

Claim 24 (new): The device of claim 16, characterized in that the porous layers of a subassembly are in local contact with the porous layers of an adjacent subassembly.

Claim 25 (new): The device of claim 15, characterized in that each transfer structure comprises at least one molded polycarbonate plate.

Claim 26 (new): The device of claim 15, characterized in that the stack is peripherally enveloped in an airtight film.

Claim 27 (new): The device of claim 15, characterized in that the stack is mounted pressed between fluid distribution bodies provided with members for connection to circuitry.

Claim 28 (new): The use of the device of claim 15, for humidifying the air feed to a fuel cell.